

AMENDMENTS TO THE CLAIMS:

Please amend claim 8 as indicated below. This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) A photomask comprising:

a substrate;

a translucent film selectively formed on the substrate; and

a shading film selectively formed on the translucent film, wherein

when the substrate, the translucent film and the shading film have Young's moduli (MPa) E_0 , E_1 and E_2 , and film thickness (m) d_0 , d_1 and d_2 respectively, internal stresses (MPa) of the translucent film and the shading film at room temperature are s_1 and s_2 respectively, a covering rate by the translucent film defined by an area in which the shading film is not formed is expressed as h , and coefficients are expressed as $k_1 = 1.3 \times 10^{-8}$, $k_2 = -9.5 \times 10^{-2}$, $k_3 = 6.0 \times 10^{-7}$, and $k_4 = -5.2 \times 10^{-2}$ respectively, the substrate, the translucent film and the shading film satisfy a condition given by the following expression:

$$\left| \frac{1}{E_0 \cdot d_0} \cdot \left\{ h \cdot \left(k_1 \cdot \frac{S_1}{E_1 \cdot d_1} + k_2 \right) + \left(k_3 \cdot \frac{S_2}{E_2 \cdot d_2} + k_4 \right) \right\} \right|$$
$$\leq 1.4 \times 10^{-4} (m^{-1})$$

2. (Original) A photomask according to claim 1, wherein the internal stress of the shading film at room temperature is in the range of 500 MPa to 5 GPa.

3. (Original) A photomask according to claim 1, wherein the substrate, the translucent film and the shading film satisfy a condition given by the following expression:

$$\left| \frac{1}{E_0 \cdot d_0} \cdot \left\{ h \cdot \left(k_1 \cdot \frac{S_1}{E_1 \cdot d_1} + k_2 \right) + \left(k_3 \cdot \frac{S_2}{E_2 \cdot d_2} + k_4 \right) \right\} \right| \leq 0.87 \times 10^{-4} (m^{-1})$$

4. (Original) A photomask according to claim 3, wherein the internal stress of the shading film at room temperature is in the range of 1 GPa to 4.5 GPa.

5. (Original) A photomask according to claim 1, wherein the covering rate h is $100\% > h \geq 30\%$.

6. (Original) A photomask according to claim 1, wherein the substrate, the translucent film and the shading film are made of quartz, MoSiON and Cr, respectively.

7. (Original) A photomask according to claim 1, wherein a first phase of light that passes through a first area in which the translucent film and the shading film are not formed differs from a second phase of light that passes through a second area in which the translucent film is formed.

8. (Currently Amended) A method of manufacturing a photomask comprising:
forming a translucent film and a shading film sequentially onto a surface of a substrate;
measuring an internal stress in each of the translucent film and the shading film;
determining whether or not a following expression is satisfied when the substrate, the translucent film and the shading film have Young's moduli (MPa) E_0 , E_1 , and E_2 , and film thickness (m) d_0 , d_1 , and d_2 respectively, internal stresses (MPa) of the translucent film and the shading film at room temperature are s_1 and s_2 respectively, a virtual covering rate by the translucent film after mask pattern formation defined by an area in which the shading film is not formed is expressed as h , coefficients are expressed as $k_1 = 1.3 \times 10^{-8}$, $k_2 = -9.5 \times 10^{-2}$, $k_3 = 6.0 \times 10^{-7}$, and $k_4 = -5.2 \times 10^{-2}$ respectively, and a predicted warping amount for a desired photomask after the mask pattern formation is defined as A (m^{-1}); and

$$\left| \frac{1}{E_0 \cdot d_0} \cdot \left\{ h \cdot \left(k_1 \cdot \frac{S_1}{E_1 \cdot d_1} + k_2 \right) + \left(k_3 \cdot \frac{S_2}{E_2 \cdot d_2} + k_4 \right) \right\} \right| \leq A(m^{-1})$$

removing the translucent film and the shading film selectively to be the covering rate h that satisfy the expression based on a result of the determining ~~determination result~~.

9. (Original) A method of manufacturing a photomask according to claim 8, wherein the predicted warping amount A is 1.4×10^{-4} (m^{-1}).

10. (Original) A method of manufacturing a photomask according to claim 9, wherein the internal stress of the shading film at room temperature is in the range of 500 MPa to 5 GPa.

11. (Original) A method of manufacturing a photomask according to claim 8, wherein the predicted warping amount A is $0.87 \times 10^{-4}(\text{m}^{-1})$.

12. (Original) A method of manufacturing a photomask according to claim 11, wherein the internal stress of the shading film at room temperature is in the range of 1 GPa to 4.5 GPa.

13. (Original) A method of manufacturing a photomask according to claim 8, wherein the virtual covering rate h is $100\% > h \geq 30\%$.

14. (Original) A method of manufacturing a photomask according to claim 8, wherein a first phase of light that passes through a first area in which the translucent film and the shading film are not formed differs from a second phase of light that passes through a second area in which the translucent film is formed.

15. (Original) A method of manufacturing an electronic product comprising:
forming a photoresist on a substrate to be processed;
passing light through a photomask having a mask pattern that has a substrate, a translucent film selectively formed on the substrate and a shading film selectively formed on the translucent film to transfer the mask pattern onto the photoresist; wherein when the substrate, the

translucent film and the shading film have Young's moduli (MPa) E_0 , E_1 and E_2 , and film thickness (m) d_0 , d_1 and d_2 respectively, internal stresses (MPa) of the translucent film and the shading film at room temperature are s_1 and s_2 respectively, a covering rate by the translucent film defined by an area in which the shading film is not formed is expressed as h , and coefficients are expressed as $k_1 = 1.3 \times 10^{-8}$, $k_2 = -9.5 \times 10^{-2}$, $k_3 = 6.0 \times 10^{-7}$, and $k_4 = -5.2 \times 10^{-2}$ respectively, the substrate, the translucent film and the shading film satisfy a condition given by the following expression:

$$\left| \frac{1}{E_0 \cdot d_0} \cdot \left\{ h \cdot \left(k_1 \cdot \frac{S_1}{E_1 \cdot d_1} + k_2 \right) + \left(k_3 \cdot \frac{S_2}{E_2 \cdot d_2} + k_4 \right) \right\} \right| \leq 1.4 \times 10^{-4} (m^{-1})$$

developing the photoresist; and

selectively processing the substrate to be processed using the photoresist as a mask.

16. (Original) A method of manufacturing an electronic product according to claim 15, wherein the internal stress of the shading film at room temperature is in the range of 500 MPa to 5 GPa.

17. (Original) A method of manufacturing an electronic product according to claim 15, wherein the substrate, the translucent film and the shading film satisfy a condition given by the following expression:

$$\left| \frac{1}{E_0 \cdot d_0} \cdot \left\{ h \cdot \left(k_1 \cdot \frac{S_1}{E_1 \cdot d_1} + k_2 \right) + \left(k_3 \cdot \frac{S_2}{E_2 \cdot d_2} + k_4 \right) \right\} \right|$$

$$\leq 0.87 \times 10^{-4} (m^{-1})$$

18. (Original) A method of manufacturing an electronic product according to claim 17, wherein the internal stress of the shading film at room temperature is in the range of 1 GPa to 4.5 GPa.

19. (Original) A method of manufacturing an electronic product according to claim 15, wherein the covering rate h is $100\% > h \geq 30\%$.

20. (Original) A method of manufacturing an electronic product according to claim 15, wherein a first phase of light that passes through a first area in which the translucent film and the shading film are not formed differs from a second phase of light that passes through a second area in which the translucent film is formed.